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**THE JUNIOR HIGH SCHOOL CLEARING HOUSE**

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*Excluding the Summer Months*

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## A WORD TO THE WISE.

We have our varied opinions concerning what constitutes wisdom. The writer considers anyone wise who joined the membership at the two dollar rate. Twenty-five sets of file copies were offered at five dollars per set. The entire project entailed an expense of about two thousand dollars, not including the gratuitous work of the manager and of those who were kind enough to give their effort and progressive experiences for the good of the cause. Never before has a printed series of symposia of school progress been maintained in behalf of the Junior High School, and may never be tried again. However, the self-constituted manager, editor and publisher signed below has had a rare opportunity in working (sub rosa) in behalf of the beginnings and furtherings of a bigger idea of education which is sure to come because of actual interest in this new type of school—the Junior High. The combined bulletins comprise a volume of 320 pages of real experience of thinkers who are doing what they dared to think.

The score is paid to date and in advance. The next issue will appear in the May. It will be Number Eight (8)—the last of the series.

Sincerely,

S. O. ROREM,  
Manager Junior High Clearing House.

## TOPPENISH PUBLIC SCHOOLS

*Arthur L. Marsh, Superintendent*

Toppenish, Washington, April 13, 1921.

Editor Junior High School Clearing House:

In the first year of our Junior High School a serious weakness presented itself in too sudden and complete change from the one teacher of the sixth grade to several (actually seven) in the seventh grade under the strictly departmentalized plan. It soon became apparent that the new sevenths needed a little more mothering (or fathering) then they could get from the roll room teacher. The procession of teachers of different types and temperaments throughout the day's program meant a problem of read-

justment—of psychological gymnastics—that proved too much for the young seventh graders. Also there was no agent of correlation of subject-matter and activities in the several subjects. The need of a gradual rather than abrupt change from the elementary to the high school plan became very apparent.

This year we have remedied the weakness by putting the seventh grade children under one home-room teacher for the whole forenoon with three of the four principal subjects in the forenoon program on the supervised study plan, and in the afternoon program carrying out full departmentalization as in the upper classes. So far the new plan has given most satisfactory results.

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“The General Science Quarterly” for January, 1921, prints an article on “Civic Science for the Junior High School.” To quote: “We need more suggestion of ways and means whereby the average teacher can secure keen interest on the part of the pupil which carries over into self-imposed activity. \* \* \* The science problems which arise in one’s environment have to do with the relationship of people who make up a community. They deal with citizenship or they may be called civic problems.” The discussion includes a plan for Civic Science which is divided into Home Science, Community Science and Industrial Science.

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“Mathematics in the Junior High School” is the name of an article by E. R. Breslich of the University of Chicago which appears in the January number of “The School Review.” “Junior High School pupils need a treatment different from that suitable for the children of the first six grades, and they are too young to associate with the older pupils of the high school. The report of the National Committee on Mathematical Requirements also expresses the view that arithmetic intuitive geometry, algebra, numerical trigonometry, and demonstrative geometry form a suitable course. There is, however, difference of opinion regarding the arrangement of these subjects.” An outline is given on what was done in one of the experimental classes of the Junior High School at the University of Chicago.

## JUNIOR HIGH SCHOOLS.

*J. A. Starkweather, Duluth, Minn.*

Junior High Schools were established in Duluth four years ago, and we feel that at the present time we are able to make some definite statement on their value as a part of a school system. We receive many requests for explanation of our Junior High School system, and in order to answer these questions this little circular has been prepared. You will find enclosed a copy of the course of study.

All 6A students, previous to entering the Junior High School, are given a general intelligence test. This year we used the National Intelligence test. These tests are given to assist in dividing the students, upon their entry to the Junior High Schools, into groups according to their general ability as nearly as can be done. It is expected that those groups of higher intelligence levels will be required to do more work than those of lower intelligence, but that all who pass the beginning grade—7B we term it in the Junior High School—must come up to a certain minimum standard which is set by the course of study. These different groups are maintained straight through all their classes. That is, group "A" remains the same list of students in all the subjects. Separate mixed groups are maintained for students who have failed.

Over age and over size pupils may be and are frequently admitted to the Junior High School. These pupils are given courses to fit their needs. Their classes are determined by conference with pupil, teachers, parents and the principal of the Junior High School as circumstances demand. The point, from the administrative side, is that the pupil is not required to study all the subjects in the regular curriculum. We have students who spend one-half of their time or more in the shops, students who come to school half time, etc.

Each student upon entering the Junior High School is required to make a choice, under the guidance of the principal of the Junior High School and with the written con-

sent of the parent, between the academic course and the pre-vocational course. Once either of these courses is chosen he must take this course for at least one year, and preferably for both the seventh and eighth years. At the end of the eighth year a student may change from the prevocational to the academic or from the academic to the prevocational. Beginning with the ninth year, the student has also a third choice—he may take an academic course which includes some foreign language or science, or he may take the industrial course, or the commercial course. It is evident from the Junior High School course of study which we employ, that the students taking the prevocational course are required to go through a series of shops with very little choice on their part as to what shop they take. They are assigned to the shops in rotation in accordance with a scheme that is convenient for administering the school. A student beginning with the tenth year, in the Senior High School, must again make another choice which determines whether he will continue a technical course, or an academic course, or some other course leading to a particular field of higher education.

All of these courses are given in as practical a way as possible so that if a student is compelled to leave school before he has completed a high school course, the information which he has gathered will be valuable to him in his everyday life. Thus while this work is called prevocational it is in reality general education and is prevocational only in the sense that it is given previous to the student's choice of a vocation. It is made practical by giving that information which will be used in the average home life of a boy and girl. Not only do we attempt to teach the "how" in the shops, but we attempt to make the content of the shop subjects fully equal in educational value to that of any academic course which we offer.

Those students in the seventh year who choose an academic course will study one of the foreign languages. Those students who choose a prevocational course will, instead of the foreign language, have two periods per day of shop work, otherwise their program is exactly the same as that of the academic student.

There are three main ideas fundamental to the philosophy of the so-called prevocational course:

*First.* The courses are to be made practical so as to

have general education value as indicated above.

*Second.* Through correlation of the shop work with the English work, the arithmetic work, and the art work as given by the other teachers, it is possible for the shop subjects to make real to the boys and girls the work of the other classes. To illustrate by a specific example: Three years ago we had a student in high school who was failing in Algebra. He went into a class in Electricity in the ninth year. It was the first year that we had the Junior High School. After a few weeks of work in electricity he learned how to manipulate the equation  $C \text{ equal } E \text{ times } R$ . He took the electrical formula book home with him and came back in a few days triumphantly showing his teacher that he had worked all the problems. Needless to say this boy passed with good marks in Algebra. He understood the "why" of the equation. Numerous other examples might be given showing how arithmetic is improved and English is made vital by having boys and girls work with material on which they have definite information.

*Third.* A series of shop activities enables both pupil and teacher to reach some conclusion as regards the aptitudes and abilities of individual students. This naturally leads to some educational guidance which may result in the later years, the ninth and tenth, in vocational guidance.

The vocational guidance of the Junior High School is more negative than positive in that it enables both teacher and pupils to eliminate those subjects in which it is evident the pupil has small aptitude and ability.

In one class we have kept the records of those students for the four years in which the Junior High Schools have been in operation, and we find that the negative guidance amounted to 75 per cent and that the positive guidance amounted to 25 per cent. Of that 25 positive guidance, all the students have continued in the field of work which they selected in that class, either by continuing in technical and higher education or by going out into actual employment in the previously selected field of work.

This is only one of the results which we have been able to trace. There is positive evidence of an increase in enrollment, and also an added percentage of pupils continuing their education from the eighth year into the high

school. For the last two years, in this school, 98 per cent of the girls have gone into the Senior High School and a large percent of these are continuing to graduation.

One of the greatest difficulties which arises in the establishing of the Junior High School is the change from one teacher to several teachers. This difficulty can be overcome by requiring each teacher in the Junior High School to be able to teach at least three of the Junior High School subjects and by making a provision that each teacher shall act as a "mother teacher" to a definite group of students. This means that she looks after their attendance, their absence, their tardiness, that she checks up their report cards, and is interested in their daily progress. Other class room teachers report to this teacher the difficulties of these students and an attempt is made to make her the "clearing house" for adjusting difficulties between a pupil and his teachers.

Junior High Schools through promotion by subject and departmental work offer an opportunity for students to succeed in those lines in which they are gifted, and not be compelled to lose a whole year because of failure to complete some particular subject in which they have not equal ability.

Through the auxiliary group activities, such as the orchestra, debating, athletics, camera club, girls' sewing clubs, and activities of this nature, the interest of the boys and girls outside of school hours can be kept on something which has real educational value.

Through the opportunities for self control and self government, it is possible to develop to a high degree the sense of citizenship and community ownership of the school building. Most Junior High Schools have an auditorium where all the children gather together. The value of an auditorium to unify the school, to mould the sentiment of the pupils and to create a wholesome school spirit can hardly be estimated. Its value is limited only by the skill of the principal and the character of the material which he presents at his auditorium session. Certainly there is no greater opportunity for improving the civic and moral attitudes of the students than that which is given through auditorium meetings.

## THE PLACE OF THE JUNIOR HIGH SCHOOL IN THE EDUCATIONAL SYSTEM OF THE COUNTRY.

*Jasper T. Palmer, Mount Vernon, N. Y.*

The Junior High School idea has been in existence long enough now for some people to begin to question its permanency in the educational system of this country. There is always more or less skepticism attending every new movement, and there are those just waiting for an opportunity to "I told you so." Such people can never be classed as progressive; they are the timid, usually; and the "copy-cats" in all that appears good.

The Junior High School organization has been an experiment in its methods, and still is. There has been no educational movement in which there has been such a great variety of methods of organization and procedure as the Junior High School. Some people have taken this to spell failure at the outset. Personally, I believe the indefiniteness and experimentation has been productive of good; it has called forth the initiative and real thinking as no general movement has done before. Practically all educators are agreed that our 8-4 system is a matter of tradition, and that the lock-step methods are not consistent with the times. In this experimentation, among the unafraid and the progressive, the Junior High organization is shaping itself.

Undoubtedly many theories have been advanced which are not meeting the expectation in certain details; but the major principles of the Junior High School are here to stay. The vocational guidance and determination has undoubtedly been over-emphasized, but one's vocation is a mere incident in one's education; this is secondary. Our primary job in the public schools is to train for efficient citizenship; avocation has as much a place, or should have, in one's

training as vocation. Both involve fundamentals with which the Junior High School should concern itself.

We find "the finding of one's self" a prominent theme or feature in the new organization. This means more than finding the particular job for which one is fitted. Our first duty is to make each individual feel that there is a place for him in the world; that he has certain capacities and intelligence that should be developed to the fullest extent possible; that there are those who will excel him in some lines, and those he should be able to excel in other lines. In other words, he must recognize himself as an individual and not simply a very small part in a great mass; and that there is a definite place for just his type. He must be led to see the great need of proficiency along certain lines. He must learn that honesty heads the procession toward any goal; he must learn that fair play is one of the fundamental tenets of democracy. He must realize that his teachers are with him in the game of fair play; they lead by example.

It is the business of the Junior High School to point out short comings; to inspire to do one's best, whatever the child's native ability may be. With the coming of scientific tests, it will not be so difficult to help one in self-analysis and direction. The slow minded should be led at his pace; the quick should have his opportunity, but let us take care that the slow-minded is given the same feeling of contentment and interest on the part of the teachers as the quicker minds.

The Junior High School's place is one of moral and educational guidance and the adjusting of courses of study and methods to be the real needs of individuals. In this we shall be training for efficient citizenship; the efficient citizen finds his place in the world—he easily works into the machinery of life, realizing that his development is a trinity, moral, mental and physical; that he is not only expected to win the bread of life efficiently, but that he is expected to be happy and healthy—one of God's natural human beings.

## YOUNGSTOWN JUNIOR HIGH SCHOOL

*Principal J. W. Smith, Youngstown, O.*

We are just getting our school started. Much of our equipment is not yet set up. With the help of the Psychological Clinic we are classifying our pupils by mental ability, modified to some extent by the teacher's judgments, and our pupils seem to like it. We are making our very best efforts to get each pupil in the place where he likes to work and where he can do his best work. The pupils and their parents have helped us very much and seem to be well pleased with our progress so far.

As Youngstown is a steel city, we requested the Sheet Metal Contractors' Association and the Sheet Metal Labor Union to help us get out a course in Sheet Metal Work. Both bodies loaned us their best man and we worked faithfully to get out a good course. When we had the course finished the union men thought so much of it that they petitioned the Board of Education to have it given in evening classes. They insist on every apprentice taking the course before he can have Union Card. The course has been running about six weeks and has all the apprentices and many union men rolled. They have appointed a committee to inspect and supervise our work.

Our department stores have promised to help us work out a course in Salesmanship. Several of the Labor Unions have asked us to do for them what we did for the Sheet Metal Workers. We are not trying to give full vocational training. We are trying to get our pupils to find out what they are fitted to do and what they like to do so that they may make a wise choice of vocation when they are through school.

As Youngstown has many pupils of foreign birth and foreign parentage, and as foreign language work is not so difficult for these pupils, we are giving those students, who

have the desire for it and the ability to do it, a chance to start Latin, French or Spanish in the seventh grade. All these are taught by the direct method.

Our Physical Training is under the direct charge of our Health Department. This department enrolls every pupil of the Junior High in Hygiene and Sanitation, the boys in First Aid, and the girls in Nursing. Games are played to break down social barriers and develop a sense of fair play rather than a desire to win. All this work is so presented that our children are making a strong attempt to build a healthy body to house a cultivated mind. Diet, sleep, exercise and work are being studied and pupils are attempting to form good habits.

We have classes in piano and violin for those musically inclined and who desire to take such work. These are so popular that we are planning to organize classes for work on other musical instruments.

On account of the great number of accidents, our School Council engaged in a Safety Campaign. Dangerous crossings were policed by the boys, children were taught where to cross, reckless drivers were reported to the police. The cases against these drivers were prosecuted by the Automobile Club and some drivers lost their licenses. We have not had an auto accident in this district since last November. We aim to follow up this work as occasions demands.

We are not losing sight of the academic work. We are doing our best to determine just what should be taught and show it should be taught. We welcome every suggestion and give the feasible ones as fair a trial as we know how. All our departments are working together and we are attempting to make the work of each department carry over into all the departments.

We have profited by the Clearing House and would be sorry to have it discontinued. If we have anything that will be of use to any one we shall certainly be glad to forward it.

## BOYS' TECHNICAL HIGH SCHOOL OF MILWAUKEE, WISCONSIN.

*Principal James L. Cox, Milwaukee, Wis.*

### *Admission.*

The Boys' Technical High School serves the entire city of Milwaukee, and is specially organized to meet the needs of three distinct classes of boys:

1. Any boy who has finished the sixth grade may, if he is mechanically inclined, continue his schooling here, receive the benefit of vocational guidance through the medium of a variety of shop work and numerous shop trips, and be taught by specially prepared male instructors in departmentalized classes, organized on the basis of a three-year Junior High School and a three-year Senior High School.

2. Any boy regularly prepared to enter high school who desires to learn a trade and at the same time to prepare himself for a college course in an engineering or technical school, finds here the combined opportunity for these two types of work.

3. Any boy sixteen years of age who wishes to give up his regular school work and prepare himself in the shortest possible time to enter the industries as a skilled mechanic, will find two-year unit trade courses outlined for him in all departments, and may enter at any time during the year.

### *Types of Shop Work.*

At present the following types of shop work are offered: Electrical, Machinist and Tool Making, Pattern Making, Plumbing, Carpentry and Cabinet Making and Printing. Mechanical and Architectural Drafting are taught as trade subjects, but are not open to election as shop subjects in the Tech Department.

### *Credit Requirements for Graduation.*

#### *A. Trade Departments.*

Graduation from a trade department depends upon the completion of a regular course of study planned for that

trade, and including both technical and allied academic work. While such courses are laid out on the average basis of two or two and one-half years' work, depending upon the length of day elected, the student may progress as fast as his individual ability will permit, and is given his trade diploma upon the satisfactory completion of the required work, regardless of the length of time he spends in the school. He is then qualified to enter industry in his chosen field as a skilled mechanic.

#### B. Tech Department.

There are required 240 credits for graduation from the Junior High School and 240 additional for graduation from the Senior High School. Tech shop work regularly occupies two periods a day and is granted credits at the rate of 10 per semester. Mechanical Drawing regularly occupies one period a day and is granted credit at the rate of 5 per semester. Mechanical Drawing and some type of shop work are compulsory throughout the course. Other studies usually require one period in class each day, and regular home preparation besides; credit for such studies is granted at the rate of 10 per semester for each study carried. Credit for gymnasium work is granted in proportion to the amount and quality of work done. All subjects listed in the following course of study are required of all pupils except where specially marked elective.

#### *School Day and Year.*

The school day begins at 8:30 and continues with 50-minute periods until 3:10. Pupils have one period for lunch, either at 11:00 or 11:50. A cafeteria is conducted in the building. Students in the trade departments and in the Senior High School may elect to continue their shop work until 4:50. This arrangement makes it possible for a student to graduate with a high school education plus a skilled trade.

#### *Course of Study—Tech Department* Lower Junior.

First Semester:	Second Semester:
English	English
Arithmetic	Arithmetic
Geography	Geography
Mechanical Drawing	Mechanical Drawing
Bench Woodwork	Shop Elective (see note a)

## Middle Junior.

First Semester:	Second Semester:
English	English
Arithmetic	Arithmetic
Historical Civics	Industrial Civics
Mechanical Drawing	Mechanical Drawing
Shop Elective (see note a)	Shop Elective (see note a)

## Upper Junior.

First Semester:	Second Semester:
English	English
Algebra	Algebra
General Science	General Science
Mechanical Drawing	Mechanical Drawing
Shop Elective (see note a)	Shop Elective (see note a)

## Lower Senior.

First Semester:	Second Semester:
English	English
Geometry (Plane)	Geometry (Plane)
Mechanical Drawing	Mechanical Drawing
Specialized Shop (see note b)	Specialized Shop (see note b)
Biology or Modern Foreign Languages	Biology or Modern Foreign Language

## Middle Senior.

First Semester:	Second Semester:
Geometry (Solid)	Algebra (Advanced)
Mechanical Drawing	Mechanical Drawing
Specialized Shop (see note b)	Specialized Shop (see note b)
Two electives from: English, History, Modern Foreign Language, Physics (see note c)	Two electives from: English, History, Modern Foreign Languages, Physics (see note c)

### Upper Senior.

**First Semester:****Mechanical Drawing****Specialized Shop (see note b)****Three electives from:****English, Chemistry, History, Trigonometry, Modern Foreign Language (see note c)****Second Semester:****Mechanical Drawing****Specialized Shop (see note b)****Three electives from:****English, Chemistry, History, General Mathematical Applications, Modern Foreign Language (see note c)**

(a) Pupils entering any year of the Junior High School course from any other school must take one semester of bench wood work before being permitted to elect other shop work, unless they have completed the equivalent of the eighth grade manual training prescribed for the Milwaukee Public Schools. As a rule pupils will be required to change shops each semester during the Junior High School course, this being regarded as a period of selection and guidance; exceptions are made only in individual cases, after consultation between parents and Principal.

(b) As a rule, pupils entering upon the Senior High School course will be expected to specialize in one selected type of shop work; exceptions will be made only by permission of the Principal.

(c) English will be required throughout the entire course unless a foreign language is elected. Foreign language may be begun either in the Lower or Middle Senior class. Once a pupil starts a foreign language he will be expected to continue it throughout the remainder of his course. Pupils should be careful to choose electives in accordance with their plans after leaving high school. For instance, the entrance requirements for all colleges are not the same, and serious difficulties may easily arise in gaining admission if proper elections have not been made in high school.

Gymnasium work is required throughout the Junior High School course.

## HOW THE JUNIOR HIGH SCHOOL SHOULD LEAD TO A BALANCED VOCATIONAL CHOICE.

*S. O. Rorem, Principal East Junior High, Sioux City, Iowa.*

The school should lead to a balanced vocational choice:

1. By being certain about what constitutes balance in choice.
2. By a complete motivation in all subjects.
3. By a complete broad variety of subjects.
4. By finding a reason for leading toward a vocational choice.
5. By a study of vocations.
6. By a teacher's knowledge of vocations.
7. By consultations with the pupils.

It is not necessary for us to discuss at length all of these seven requirements. A general discussion at the beginning will introduce them in determining what should constitute a vocational choice.

Balance in choice of vocations refers to the *choice* rather than to the vocation. It means that a choice must be made with equal weight at both or all ends, being ideal with the balance figuratively taking the form of a wheel on a pivot. The spokes are the possible divergences from the rim to the hub and back again. The happiest man is the one who has surveyed his possibilities and his opportunities well enough to know that the vocation he has chosen and has spent his effort upon is the one which is best for him. He must be free of envy of other occupations and other workers, if he would remain balanced in his choice. He must know by testing and by effort, what he likes or dislikes and should choose the occupation whose shortcomings he can best endure. He must learn as much as possible about each occupation from books, from observation, from experience, and from persons in and out of school. He must never choose one about which he lacks information. If he chooses without investigating through at least fifty hour by the clock he is likely to meet disheartening surprises as a result. When some one recommends a choice different from the one he has decided upon the chooser must not

be discouraged with his former choice until his new impulse is subjected to the same investigation as the first one.

Neither the first six grades nor the Junior High School should contribute many permanent choices. Rather they should *lead* to a safe and sane choice when the time does come. There must be, but seldom has been, a conscious application of everything in the books and classes of its value in at least the eight classes of occupations listed in the Federal classification:

1. Agriculture, Forestry and Animal Husbandry.
2. Extraction of Minerals.
3. Manufacturing and Mechanical Industries.
4. Transportation.
5. Trade and Commerce.
6. Professional Service.
7. Domestic and Personal Service.
8. Clerical.

In the matter of choosing there seem to be five successive definite steps, as follows: A broad view, a good foundation, choice of direction, a specific locating point, a development when there. The grades and Junior High School must introduce the first, second and third steps. The Senior High must determine the last two and elaborate the first three.

Reviewing the seven original points we find that some of them have been touched upon in this general statement. Nevertheless a brief definite statement concerning each may be worth while.

Number 1. Balance in choice requires an all-around school education based upon practical experience as related to problems which people will meet in vocations.

Number 2. By motivation of subjects we mean the application of the subject matter in our text books to the needs of practical people. The subject matter must be studied not as information to be learned for its own value, but as material so broad in its scope that it can stand application to the needs of the child coming from the minister's home, from the laborer's home or from the banker's home. That motivation must take place during the class period if it shall ever take place in large enough amounts to be worth while.

A ten minute class-discussion of the use which can be made of any certain principle in mathematics or any other subject is worth more to a group of pupils than prizes or rewards or high grades for "good work" where only silent reaction or memorizing takes place. That discussion must be guided by a capable teacher. It constitutes the thinking processes which pupils must pass through and achievements they long to accomplish. When this takes place pupils will not be required to say that there is no sense to what schools offer. They will stay in school without compulsion.

Number 3. By a broad variety of subjects we mean only those which are within the realm of justification. In some schools this matter has already been arranged or is being struggled with seriously. The present matter can be suitable by incorporating practical collateral material rather than by annihilating the present courses in favor of fantastical new ones. Great care must be taken that pupils are given a fair glimpse of all vocational activities rather than allowed to specialize at either extreme as is represented by the old time college preparatory school and the more recent Industrial Training school. There is no objection to reaching both extremes if the intermediate ground is covered with equal care.

Number 4. Finding a reason for having a vocation seems superfluous at first thought. Still there are in the schools a large majority of girls, most of whom expect to "just get married" and a large proportion of boys and girls who come from homes where the father has more than enough money to keep them all as long as they live. There are many, too, who come from homes where the parents think that any job which brings an income is good enough for the children. A narrow viewpoint is the cause of most of these situations. It is the task of the Junior High School through its teachers, through its text books and through class discussions to make every pupil wish to be of service in his largest capacity through some vocation.

Number 5. A study of vocations, when carefully made, forms the foundation for choice. This furnishes the outside viewpoint much as observation of various styles of automobiles helps a buyer to decide which one looks best and which

one is designed to carry the number of passengers he wishes it to carry. After taking the pre-view the vocation buyer can scarcely be justified in whining that some one else fooled him into buying a two cylinder, single seated car, when by a little more time, care and effort he could have had a twelve cylinder, seven passenger outfit.

Number 6. A teacher's knowledge of vocations means more than what is in books. It means all that a teacher can read about vocations, all the teacher can acquire by observation of vocations, and all the teacher can experience in actual vocations. Teachers who expect to remain in the school business successive years should be encouraged to spend their vacations in a different occupational classification each year instead of the alternative of going to summer school. It may be too much to expect of teachers that they should be experienced in each of the eight groups of the Federal classifications. Still it seems reasonable that *teachers* would be worth to a school system an additional five hundred dollars a year for each occupation about which they can contribute first-hand knowledge in addition to the professional and clerical groups.

Number 7. Individual consultation with pupils will accomplish what the other six have presumed; that is, that the teacher has become a vocational guide. However, the guidance cannot be done in masses. Only in private consultation will the modest pupil reveal his guiding motive, the secret dream or the pet ambition. The pupil will not announce openly, but will sometimes confide an entirely fallacious course of reasoning regarding his vocation. In such case the consulting teacher must seize the opportunity to correct the error and guide toward a safe vocational direction. Each consultation makes its own contribution to the effectiveness of the consulting teacher and eventually makes both pupil and teacher safer in the determination of choice.

While this discussion carries no presumption of completeness, it is, nevertheless, a serious attempt to crystallize personal convictions drawn from experience and investigation concerning the contribution schools should make in guiding pupils toward a correct occupational choice.

## CIVIC SCIENCE: GENERAL SCIENCE FOR THE JUNIOR HIGH SCHOOL.\*

*W. G. Whitman, State Normal School, Salem, Massachusetts*

(This article is taken from the General Science Quarterly and is reprinted by request. We use it because of the good matter it contains and thank our friend for bringing it to special attention.—S. O. Rorem, Editor.)

\*Abstract of paper given at General Science Section meeting of the Central Association of Mathematics and Science Teachers in Chicago, November 26, 1920.

*A Changing Point of View:* Whether or not we can detect the fact that education is in process of change at the present time, whether or not we are teaching science exactly as we did six years ago we all realize that the child of tomorrow will receive a vastly different type of education from that received by the child of yesterday. The change is coming and in response to the insistent demand so long heard, to make education more practical. The turmoil of the World War has given us a point of view. It has loosened the props of the old conservative type of education, and makes it possible to build anew, to try out different material and to try it in different ways.

Twenty years ago; yes, ten years ago, general science was fighting for its very existence. Now it has won its fight and is as firmly established as any special science. In the hands of its promoters it has been a live-wire and has challenged the pupil to his best effort. The subject has, however, had more than a healthy growth. It is an overgrown child as it were. And as a result we find much "General Science" which lacks the vital contact points of life which are essential to a healthy growth. Many of our textbooks merely give information where they should stimulate activity. Our best teachers, either with or without textbooks, are able to secure pupil activity which is of

far greater value than the facts derived from a text. We need more suggestions of ways and means whereby the average teacher can secure keen interest on the part of the pupil which carries over into self-imposed activity.

*Civic Science Problems:* The science problems which arise in one's environment have to do with the relationship of people who make up a community. That is, they deal with citizenship, or they may be called civic problems. They may deal with health, saving life, saving property, conservation of natural resources, welfare work, and various other problems of general public interest.

A large part of our population is now grouped into communities of varying sizes. As a result of this we have in addition to the individual and home-group problems the community-group problems. Many of these are merely enlarged home problems, while others are strictly problems belonging alone to the community.

The following list of questions is copied from the Canadian Public Health Journal:

1. Do you know the birth rate and the death rate in your community, and whether it compares favorably or unfavorably with that in other places?

2. Have you a welfare or health council to supplement and stimulate the work of your local health department? Has such a council made a survey of health conditions from the point of view of prevention rather than cure, and have its constructive recommendations borne fruit as seen in a higher standard of community health?

3. Do you know what diseases are most prevalent in your community and what measures are taken against them?

4. Is there good medical inspection in your schools by doctors and nurses, with follow-up work when necessary in homes? What published reports have you from these inspectors? Is your health department sufficiently financed to do this work in a thorough and efficient manner?

5. Have any of the schools in your town made provisions for providing lunch—free or at a nominal price—for the children?

6. Have you adequate hospital and dispensary accommodation with ample provision for free treatment?

7. What health standards are guaranteed in your jails, insane asylums, children's homes, homes for the aged and other institutions, guaranteed for these dependent delinquents and defectives, by a society that is so largely responsible, through ignorance, indifference or neglect, for having these wards of the state dependent on its intelligent, sympathetic care and generosity?

How many average citizens can answer these questions?

There is no denying the need of better health teaching. Our army examinations indicated the woeful lack of physically fit men in the country. Surveys made show the lack of definite health teaching in a surprisingly large number of schools. Many superintendents have advocated the union of hygiene and science, believing that when taught with the science background and with the fuller *understanding of the reasons why* that science can give it, hygiene instruction will make a greater impression upon the child and will, therefore, produce a much more lasting effect for good and will help in some measure toward greater physical fitness in our boys and girls.

It is not merely the personal health habit we wish to establish, but a sense of community health rights. If we can so impress the boys and girls with their responsibility toward others and secure good health habits about spreading disease a big thing will have been accomplished. We must not stop short of pointing out the reciprocal relation of the individual and his community. Not only does the individual owe much to the community and must even yield his liberty and endure quarantine if need be, but the community itself owes the individual certain protection against disease and epidemics of disease. This whole question of personal and community hygiene and sanitation is loaded with project-problems, some of which are these: personal care of one's body, home sanitation, removal of wastes, hygienic heating, ventilating, lighting, pure food supplies, pure water, board of health activities, recreation opportunities—public parks, playgrounds and baths.

We realize today, perhaps better than ever before, that all our teaching ought to develop those sterling qualities

of boyhood and girlhood which are assets in good citizenship. General science is one subject which is particularly fortunate in having a wealth of material which is essential in the consideration of a large number of civic problems. General science thus has a splendid opportunity to participate in the education of pupils, to make a body of citizens who will be more intelligent about the affairs of the city or town and who will be interested in civic betterment. In a similar way general science may help in producing well-informed, rational thinking citizens of the nation.

What better incentive can you hold before your pupils than that they become active factors in making their home towns as nearly perfect as possible and in making each community approach ideal conditions as well? Begin with the home, pass on to the community and then to the outside world with its varied industries by which our nation exists. Science applied to the home, to the community, and then to our national life, if made so practical that real contracts exist between the classroom, the home and the community, and if these contracts are so vital that a better understanding of civil affairs and some real improvements result, then the study of science is making a distinct contribution to society. Sooner or later our school subjects are to be given the acid test. To withstand this test they must begin now to qualify. If the science taught in your school does not touch every day life in a very vital way it does not meet the great needs of the pupil and of society and it cannot long endure.

*The Plan for Civic Science*—The plan for teaching Civic Science is both psychological and logical. It begins with science nearest the pupil—in the home and expands to larger surrounding environments. Since boys and girls of eleven to thirteen years of age spend the greater part of their time at home and are more familiar with the home environment than with any other, it is best for them as beginners in general science to make the home the center of their study. From our adult point of view we know that science in the home covers small areas of a large number of special sciences and we are pretty well agreed that there



should be no attempt to classify the science knowledge as belonging in special groups in the early years of science study. In nature study and geography pupils have already made a beginning in science. They can make use of this science knowledge and their experience now in applying them to the home. Even the sciences related to the home would lead far into remote fields of science were we to allow it to continue without restrictions. It will be better to set limits and to leave many questions and problems, particularly the difficult ones, to be taken up in some future study of science.

Let us draw a circle about the central point where we start our science. This area represents the field of home science, the field within this circle comprises the various home problems which involve a little of each of the different divisions of science. The circumference of the home circle is roughly the boundary line for the general science of the first year. The boundary need not be one that can never be crossed. Frequent excursions may be made across it, but it must be borne in mind that time forbids long excursions if we would consider even briefly the simple science problems of the home.

The most natural field to enter for a second year of science is the larger environment which surrounds the home and of which the home is a part, namely the community. The home environment is rich in material of natural interest to children but it is mainly in dealing with the science problems of the community that we touch affairs of citizenship and civic responsibilities. Draw another circle outside the home circle. This to represent the community. Many of the same problems of the home appear here as community problems and here again we must set up barriers beyond which we cannot go very far if we give attention to the various important science questions of the community.

Outside the community we may make still another circle to include a science field still more remote from the pupil's environment, but involving science which is important for all American citizens to know. This field will deal with national science problems, with the science work carried on by the government and the science underlying the

basic industries of the country. A portion of the time during this third year of general science may well be used to give the pupil an introduction to the special science and to see the advantages, both of a general science study and of further special science study.

A brief outline suggesting the organization of each year of the General Science study indicates much of the subject matter which may be used.

*Home Science*—The home environment—its natural resources—whether the conditions are favorable or unfavorable to an ideal home, may serve as an introduction. The biggest asset in life is good health, hence, no subject is more worthy of a place in our science course than this. In considering good health, we must discuss pure air, water, foods, household pests, germs, and the removal of waste from the home. Heat and light not only are closely related to our health, but to our comfort as well. Not only should fuels and heating methods—useful applications of heat—be considered, but non-useful heat—fires and fire hazards—should be given particular attention in an effort to reduce the fire loss, which in 1919 reached the appalling figure of \$324,000,000 in the United States. It is important for children to understand more about their eyes, good and bad practices, and of the sources and use of both natural and artificial light. Let us try to cultivate an aesthetic taste in our pupils by having them observe different homes with their different decorations. Make application of landscape gardening to the home grounds. Consider the home garden with its friends and its enemies, and as "All work and no play makes Jack a dull boy" let us give some attention both to indoor and outdoor recreations.

*Community Science*—With a little imagination an ideal community can be described and comparisons made between the real and ideal communities. What natural resources has the community? Are they utilized? Weather and climate control man's activity. Apply this control to the local community. Water has an important part in every community, it may be for power production, food production, or domestic and industrial uses. How are we insured against impure and adulterated foods? The community, through its governing body, is under obligation to each

citizen in working for good health, in removing waste and in safeguarding the life and property of the people. Transportation problems involve different types of roads, for different kinds of traffic, the horse, auto, trolley and trains. The automobile and locomotive are today rivals for the child's interest. As essential parts of the working processes of these devices, the steam engine and gasoline engine are studied. Further transportation study must include travel through water by submarine and through the air by air-craft of various types. Modern means of communication are the nerves of a community and make for greater efficiency. Among the most important problems to consider in regard to living things are those dealing with man's improving plants and animals on the earth, and particularly with the progress made by the human race.

*Industrial Science*—Mr. Richardson told us this morning that "that nation which makes the closest connection between science and its industries, will be the foremost nation of the world." This name, industrial science, is applied to this third year of study since the major part of the work will in some way relate to our national industries and industrial life. What departments of the state government and national government involve science—as Bureau of Standards, board of health, fire marshall's office, forestry, water commissioner, etc.? What state laws relate to the health of industrial workers in factories and in their homes? What various lines of work are carried on by the United States Department of Agriculture and by the state departments? What is the Smithsonian Institution—its work? What are some of the leading science organizations of the country, and institutions specializing in science education? What are the natural resources problems? What raw materials are used in our basic industries? The processes involved in their use and the science essential to a simple explanation of the processes may be given. This industrial list may include agriculture, steel, fuels, building materials, chemical products, electrical appliances and many others. Such aids as irrigation projects, water power and reclamation of land will receive additional attention. Some time should be given to the work of the

prominent American scientists, both living and dead, and to a few of the world-renowned scientists abroad.

A brief survey of the science knowledge of the class may now be undertaken and the value of classifying this knowledge into separate compartments or special sciences may be shown. This work may include enough of the fundamentals of biology, physics, chemistry, astronomy and earth science to serve as a foundation for future special science courses and give one an appreciation of the content of these special sciences.

*Motivation to Make Science a Part of the Pupil's Daily Life Activities.*—One useful device in motivating the work is a score card. If the child is given a list of items for checking up the fire hazards in his home he is led to deal with real things in life. He and his parents will see the worth-whileness of his science work and defects discovered will lead, in many cases, to the application of the remedy. Other score cards, dealing with the environment, natural resources, fuels, lighting, foods, water supply, sanitation, health, insect pests, transportation facilities, labor saving devices, home grounds, recreation opportunities, safety devices, and educational opportunities to continue science study will help in a very marked way to show the pupil that his science is not merely useable in every day life, but he cannot live a rational child's life without using this very science that he is studying, and that science is an essential element in almost all home and community activities. As a result of discussing the score cards, numerous problems and projects will arise, often leading the pupil to undertake a project to improve some faulty condition which has been discovered, for example: such project work might result in better drainage around the homes; in removing some fire trap, such as a defective stove pipe; in great economy in purchasing fuel; in installing an electric door-bell; in improving the lighting or decreasing its cost; in the removal of some menace to health; in the extermination of pests around the home; and in providing proper games to exercise one's muscles and mind.

The organization of science clubs in connection with the science classes and the substitution of club programs in

part, or entirely, in place of ordinary class exercises, has, under proper leadership, proved very stimulating to the pupils. The reports of the club work done under the direction of Morris Meister of New York, of J. Richard Lunt of Boston, of Harry A. Carpenter of Rochester, and of Frank W. Murphy of Pittsburgh have led many other teachers to undertake it. The testimony now coming in is strongly in favor of this type of work.

Three suggestions, then, for motivating the work are the use of score cards, using the project method, and forming science clubs. These three may be used together.

*Cyclic Method.*—When we stop to think how many times we must do a thing over and over again before it becomes a habit we can better realize why it is that so much useful knowledge which once enters the child's mind is lost. It is the repeated stimulation of the same idea brought up now in one relation and then in another that makes the deep and lasting impression. We can well apply this principle in our science teaching by adopting the cyclic method. Suppose we plan a two-year course in general science, the first year of which is to be in Home Science and the second year in Community Science. Early in the first year we make a survey of the science in the home environment. We touch on the high spots of many science problems, but leave the details until later in the year. In the second year the majority of these science problems come up with increased significance. They are no longer individual problems, but many of the same science principles or facts associated with other principles and facts are applied in a larger field—to the community. Here again we may have an initial survey and later a detail study. Let me illustrate by reference to the problem of safeguarding against fires: In our survey of science in the home, fire, particularly its usefulness, will be mentioned and discussed, but let us not leave the subject of fire until its harmfulness when uncontrolled has been thoughtfully considered. In the first approach let the pupils pool their knowledge on "Fire Hazards in the Home" and "How to Extinguish Fires." Some additions may be made by the teacher. The chief purpose

of this initial survey is to raise problems, to develop projects and thus open the way for vital individual work by the pupils. Later in the course the study of fire hazards, preventive measures, methods of extinguishing, etc., come up for detailed study. Then those who have matured projects upon these topics will report them in class. The next year in a survey of the science of the community the city fire-fighting outfit will never fail to be mentioned. In the survey the first week several projects may be started. Later on, the reports of these together with other assigned classwork will bring back the various principles and facts which underlie a good understanding of fires and fire-fighting. In working out projects the second year certain knowledge gained the first year is needed. If it has been forgotten the pupil, seeing the need of it, will seek that information voluntarily and because of its having been obtained to satisfy a need and because of its having been repeated it will be more permanent.

*What Science Can Contribute to Good Citizenship.*—Very prominent among the aims of general science formulated by the N. E. A. Committee on the Reorganization of Secondary Education, are those which bear directly and indirectly upon good citizenship. The science must contribute to the pupil's individual needs and as well to the needs of the community of which he is a member. As contributions toward producing worthy citizens, it may be expected that general science will:

1. Satisfy personal desire for science knowledge and produce "well-informed" members of society.
2. Help eliminate superstition and fallacies which are a great hindrance to progress.
3. Develop imagination and create a vision of better ways and things.
4. Develop alertness to public questions by considering the science problems relating to community welfare.
5. Develop a habit of scientific thought or method of sound reasoning.

The time has passed when one is considered well educated if he can read a page of Latin, but cannot tell how

the electric bell works. Science information upon common things is now considered essential to every member of society. Many questions of public importance involving knowledge of science must be settled by the public. Without a fundamental knowledge of the science involved in these questions, one is unable to reach any fair conclusion regarding the advisability of any proposed change. We still have with us people who "know" the weather is controlled by the moon. Science is the key which can unlock the door to free thousands of our citizens from the restraint of superstition and fallacies.

What is life without imagination? How can we expect improvement in an individual, in a community, or in the human race, without the ability to see a vision ahead? Beecher has said, "A soul without imagination would be like an observatory without a telescope." What subject offers better opportunities for exercise of imagination than science? One can hardly expect the average citizen to become interested in public questions of which he has no understanding. Scores of community science problems can be made so interesting to boys and girls that the interest will not merely *live*, but *grow* with the years. The experimental methods of science, requiring as it does, the doing, the observation, the thinking and the drawing of conclusions warranted by observed data, is bound to produce a habit of sound reasoning. That every effect has a cause is no mere chance and for every act there must be some result. Science teaches truth and its application to ethics is clear. Science has much to contribute towards producing straight-thinking Americans, and thus it has great civic responsibility resting upon it. It is only necessary to recognize this responsibility and to fix the attention upon those science matters of civic importance in order that general science may make its contribution and discharge its obligation to society.

## SURVEY OF THE JUNIOR HIGH SCHOOL SITUATIONS IN CEDAR RAPIDS, IOWA.

*W. Lloyd Peterson, State University of Iowa.*

Cedar Rapids is a city of 45,000 people located in east central Iowa. It is known throughout the state especially, and even beyond state confines, as the parlor city of Iowa, and has rightly earned that reputation. The broad streets and fine parkings together with their neat, cleanly appearance, immediately commend themselves to the visitor and speak volumes concerning the city of which they are a part. The homes, churches, colleges and libraries are above standard for a city of its class.

The city is divided into two almost equal parts by the Cedar river, and the administration offices are located on an island in the river. The chief business section of the city is on the east side of the river, but the west side has been improved quite extensively in the last ten years. The city is fortunate in having attracted to it some splendid industrial plants such as The Quaker Oat Meal Mills, The Sinclair Meat Packing Plant, The Penick and Ford Starch Factory, and numerous other smaller concerns. Thus a very consistent growth has been noted since its founding.

There are twenty public schools in Cedar Rapids, including two public Senior High Schools in addition to a number of private and parochial institutions. The school enumeration for the year 1919-1920 showed a great total of 13,976, with 8,906 enrolled in the public schools, an average number belonging of 7,421, and an average daily attendance of 7074. In the two Senior High Schools mentioned above, it has been arranged for Grant Vocational School to care for those pupils who want to take vocational or commercial subjects while Washington High School receives those who desire to take the classical or commercial work.

It was into this situation that those in charge of the school interests in the city of Cedar Rapids saw fit to in-

introduce the Junior High School idea beginning the operation of the plan at Van Buren School in September, 1919, and extending it to Madison on the West Side and to Polk and Jackson on the East Side in January, 1920. The move was not made hastily, but after very careful investigation of the Junior High School idea and its successful operation in other situations comparable to Cedar Rapids. Added to the reasons generally recognized as favorable to the introduction of the Junior High School was that other large reason of a crowded condition, especially at Washington Senior High School, and the need of holding the ninth grade out of the Senior High Schools on account of this housing problem.

As noted above the institution of the Junior High Schools came after mature reflection and deliberation covering in all a period of some four years. The Superintendent of the city schools appointed a committee of four who were the principals of the schools in which the Junior High idea was to be carried forward. The committee spared no trouble in getting the best information available in the whole country and the report which it presented is deemed worthy of a place in full in this article. It is, in part, as follows:

The members of the Committee have visited other Junior High Schools, viz: Fairmont Junior, Cleveland, Ohio; Ben Blewett Junior High, St. Louis, Missouri; East Junior High at Jackson, Michigan, and Congdon Junior High at Detroit, Michigan. Two of the members attended a conference of Junior High Principals in Chicago last May, and returned with much valuable information. The individual reports of these visits are attached to this report. We hope next semester to visit the Junior High School at Rochester, New York.

We have come to realize that there is a greater significance in the Junior High School movement than appears to the casual observer or even to those in the teaching service who have not made it a subject of careful study.

The course of study offered in the elementary school should lead naturally to that in the Junior High School, and should be so arranged that there will be no waste of

time in difficult readjustment or useless repetition. To this end the history and geography taught in the Junior High School which should deal with the political, commercial and industrial development of our own and other countries, should be preceded by a course in the elementary school emphasizing the study of natural phenomena of physical and climatic conditions, of location, and of the customs and life of the people. Much use should be made of biography in the elementary school.

It is desirable that thorough preparation should be given children in the elementary school and that they be well grounded in the fundamentals previous to their entrance into Junior High School. However, the only entrance requirement should be ability to profit by the instruction offered in the Junior High School and no child over thirteen years old should be retained in a sixth grade elementary school unless he is physically and mentally immature or is a mental defective. An opportunity room should be maintained in one or more Junior High Schools for such over-age pupils.

To meet the needs of many of our pupils who are compelled to leave school early and enter commercial life, we have planned commercial course beginning in the ninth grade. Those taking this course elect commercial arithmetic instead of general mathematics or algebra, and have a choice of two of the following subjects: Spanish, type-writing, cooking, sewing and shop work. In this course as well as in the general course, English, geography, history and civics are required subjects because their social, moral and ethical value is such that they cannot rightly be omitted.

It is important that young people should form good habits of study and should learn to utilize their time to good advantage. Therefore, lessons should be carefully planned and the periods should be of sufficient length to allow time for study under the direction of the teacher. But the program should be so arranged that at least one period each day should be devoted to study. This period should be used in looking up references and following out directions given during directed study. Under this plan little home

work need be required, but it necessitates a lengthening of the school day. We suggest that the school hours in the Junior High School be from 8:25 A. M. to 12:00 M., and from 1:00 P. M. to 4:00 P. M. Teachers should be expected to report at 8:10 A. M. and to remain at their desks to give help to pupils until 4:30 P. M. The day's work should be so divided that each teacher will have five recitation periods, one study period and one period for planning and consultation. The teachers having charge of the home rooms should meet their pupils for a brief period each day.

Various forms of social and club activities should be encouraged in connection with the Junior High School. The form taken by these activities will, of course, be determined by the needs and interests of the school in which they are organized, but they should be under the supervision of the faculty and a faculty advisor should be present at every meeting.

The writer is indebted to Dr. McConnell and very particularly to Miss Post and the corps of teachers at Van Buren School for the material that is presented in this article and thus what is said will be what was obtained firsthand at Van Buren School. However, the closest articulation is reported in the operation of the system in Cedar Rapids so that what is found feasible in one school is adopted in the others and a correct idea of the whole plan may be gained through a careful consideration of any unit.

Buildings adapted especially for Junior High Schools were not to be had in the beginning and it may prove fortunate indeed that they were not already constructed for now with the schools definitely organized and operating, buildings can be designed with an adequate understanding of the needs. For the construction of these new building, \$1,500,000 has already been voted by the taxpayers of Cedar Rapids and with a return to normal conditions in the labor and materials market the plants can be erected. It, therefore, seems probable that Cedar Rapids will soon be the best equipped city in Iowa in the matter of its Junior High Schools.

There are in all about 1000 pupils in the four Junior High Schools, the Van Buren School having 267, and the range being from 240-275 students. There are forty teach-

ers and four principals employed in providing the instruction for these youth. The greater portion of these teachers are college graduates and many are peculiarly fitted for the Junior High School work they are now undertaking. The buildings are in each instance not given over entirely to the Junior High School, but house some of the elementary grades as well, as at Van Buren the first four grades and one division of the fifth grade.

After this brief word as to the general situation let us turn to curricula.

Courses of study have been prepared by committees appointed by the superintendent from among the principals and teachers in the Junior High Schools. They are not considered immutable, but are being altered from time to time as practical suggestions afford and are put out in loose leaf form mimeographed for the benefit of all concerned. Courses have already been worked out in General Science, Mathematics, English, Latin, History, 7a-8a, outline and texts; Community Civics, texts, outlines and reference books; Physical Geography and Commercial Geography, 7b, texts, topics and 7b-8a, outlines. The same are submitted below in the briefest outline found:

#### *General Science.*

Texts used and topics stressed are enumerated. No extended outline is submitted and no exact time limits for various phases of the subject are specified. The project plan of treatment is in use. Some twenty projects are considered. The subject is offered in the ninth grade.

#### *Mathematics.*

Texts and supplementary books appear and the topics studied are listed for each year of the course. One would infer from looking over the outline that practical, usable subject matter was the thing stressed.

#### *Formal English—Seventh and Eighth.*

In the seventh grade the following receive consideration:

1. Writing stories from suggestive beginnings and endings.
2. Sentences.
3. Paragraphs.

4. Nouns, pronouns, number, gender, etc.
5. Business letters and formal invitations.
6. Appositive modifiers.
7. Synonyms and antonyms.
8. Description.

In the eighth grade the following are studied:

1. Verbs.
2. Phrases, prepositions, conjunctions, interjections and clauses.
3. Simple, compound and complex sentences.
4. **Narration.**
5. Exposition and argument.
6. Punctuation and capitals (summarized).

*Literature—Seventh and Eighth.*

A list of twelve basic and eighteen supplementary productions of the best authors are submitted in the seventh grade, while in the eighth grade eleven basic and seventeen supplementary works are listed. At least one book from the supplementary list is required to be read and reported each semester. The form for report is as follows:

Pupil's Name.

Date.

1. Title.
2. Author.
3. Kind of book (Historical, Narrative).
4. Setting.
5. Main characteristics.
6. Opening situation, closing situation, situation of greatest interest.
7. What characters seem vital? What do not?
8. Do the events seem possible? What do not?

*English and Literature—Ninth.*

In the ninth "B" class the following are carefully studied: Greek and Roman Myths (specified), Church's "Odyssey," Merchant of Venice and Ivanhoe. Special attention is given to simple figures of speech in Merchant of Venice, to map drawing in the Odyssey, and to English history and institutions of the time of Ivanhoe. Home reading is chosen from a list of books submitted. In the ninth "A" class the matter of exactness in the expression of ideas both spoken and written is the thing emphasized.

Legibility of penmanship and neat manuscripts are insisted upon. Oral compositions are given in class. The use of the dictionary is stressed in order that the pupil may get the exact meaning of words already used at the same time that he is enlarging his vocabulary. Extra credit is given for books read and outlined so long as the student chooses from the designated list of books. The time division is as follows: Oral composition, one day; written composition, one day; technical grammar, one day, and practical English, two days.

#### *Latin.*

In this subject the work to be done in certain periods is specified in pages of the text to be covered. The general scope alone is indicated.

The second year's work is not considered in the outline. The paraphrastic conjugation may be given in the first year or delayed until the second.

#### *History.*

The work in the seventh "B" class is divided into three parts, viz: Ancient History, The Middle Ages and Modern History, with a very complete treatment specified. The course continues in seventh "A", taking up the subject where the previous semester left it and carrying up to French and Indian War. A very complete outline is submitted. The work in eighth "B" carries the student through the early settlement of Oregon, while eighth "A" continues the subject matter up to the present day. The outline throughout the eighth grade is quite detailed. A list of good reference books for each grade is cited.

#### *Community Civics.*

One basic text with a large amount of supplementary material supplies the material for this subject. No outline, in detail, has been provided. The main topics considered are as follows:

1. Community Life.
2. The Rights and Duties of a Citizen.
3. Government, i. e., Mechanism of Government.
4. Social Problems.

#### *Physical and Commercial Geography.*

In these subjects texts, pages covered and topics con-

sidered are enumerated for each semester. The seventh "B" class studies political geography (Europe, Asia, Africa, Australia and the East Indies), the seventh "A" class considers the physical side, while the eighth "A" class takes the commercial phase.

The daily program at Van Buren School begins at 8:00 o'clock when inter-class games are in progress from that hour until 8:30, glee clubs and orchestra practice or any special activity practice may go forward at the same period. At 8:30 the school day proper which consists regularly of seven 50-minute periods and one 30-minute conference period. It is as follows:

1:00 to 1:50	8:30 to 9:20
1:50 to 2:40	9:20 to 10:10
2:40 to 3:30	10:10 to 11:00
3:30 to 4:00	11:00 to 11:50

The period is divided, largely at the discretion of the teacher and depending upon the nature of the work, into two parts, recitation and supervised study. It may be said, in short, that supervised study is used in so far as practicable. One study is expected to be prepared at home. There is a definite understanding among the teachers and a standing division of the evenings so that both pupils and teachers know definitely which subject is to be prepared at home each evening. All grades 7-8-9 are included in this home preparation. Parents are given to understand just what is expected of the child in home preparation.

There is no provision possible under the present order of things for a general study room such as the new plants will contain so the pupils are compelled to study in their own home rooms. The home room teacher together with the principal act as student advisers to the various groups. Reports are submitted to the parents at the end of each nine-week period.

In determining the various groups in the several grades three plans have been followed, viz: (1), small divisions for slow pupils, and large divisions for the more accelerated; (2), segregation of boys and girls; (3), alphabetical order division. The first plan has been found to work the better in practice and is the one in vogue at the present

writing. There is a desire expressed for a special coaching room for retarded pupils where they may be sent until they are ready for regular classification and such a plan can be carried out when the schools are installed in the new buildings. In January, 1921, a class for pupils not quite ready for the work of the regular seventh grade will be initiated, this taken together with the extra year for retarded pupils and the three years of regular work will put a five-year plan in operation.

Athletic activity from 8:00-8:30 in the mornings was alluded to above and it is now proposed to explain this phase in full. These games are inter-class contests. Boys indulge in basket ball, baseball, socker and field meets; girls in volley ball, indoor baseball. Every boy or girl has certain minimum standards that they are expected to reach—these may be excelled—but they must be met else the individual becomes a stumbling block over which his class will fall when the averages are compiled. So the rivalry is spirited. The whole system is one in which democratic spirit is supreme.

A splendid trophy case filled with the results of good work of the teams in the several sports bore evidence of the standing of this school among its fellow schools in interscholastic contests which are also part of the athletic program. The chinning cups had been held for three years. The city physical director credits teams 60 per cent on skill and 40 per cent on sportsmanship in these contests—thus emphasizing the value of clean, manly competition. Pep meetings that are fraught with intense school spirit are indulged in before the big games and the yell leaders and speechmakers of the various classes are given ample opportunity to display their talents and effect the best showing. Often outside speakers are called in on these occasions to lend variation and give new ideas.

Frequent assemblies are held when the students are addressed by representative men and women on topics of current interest, general information or personal welfare. It is planned to offer an outside lecturer about once every three weeks. There is no student organization encouraged in the various home rooms. In fact there are no class of-

ficers at all. Experience clearly proved that a minimum of such activity was desirable. Two class parties per year were allowed. The time is from 4:30-6:00 and they are held at the school buildings. The instructors are invited and there is no question about any of the arrangements as precedent controls them. Good times are had at all such occasions and everybody is highly satisfied with the way matters are governed. The vast array of clubs and societies that are sometimes encountered in Junior High Schools are not in evidence here as those in authority feel that something in the line of outside activities should be left distinctly to the Senior High Schools, that the pupil may appreciate and look forward to as a part of that school.

In the realm of music considerable is accomplished. Glee clubs for both boys and girls, a choral club, and an orchestra are the channels through which special efforts are undertaken. Much emphasis is laid on music, two full fifty minutes periods per week being set aside for instruction of each division. In addition to this the singing at assemblies and pep meetings is featured and undoubtedly deserves the high place that those who have arranged the program ascribe to it. In forensics the oral English teacher carries the burden. Special programs are arranged by these English teachers to commemorate particular days. At the time the writer was first visiting Van Buren a program was in course of preparation celebrated the 300th anniversary of the landing of the Pilgrims. A neat six-page paper is published periodically by the several Junior High Schools in turn. Van Buren made the December effort in this direction.

While no definite statistics have been kept relative to the retentive power of the new plan as opposed to the old, largely because the new idea has been in operation for such a short time, yet those in charge feel that from 20 per cent to 25 per cent more of those finishing the ninth grade go on into the tenth now than formerly. A class of twenty-nine completed the work of the ninth grade at Van Buren in June, 1920, and all entered the Senior High School last September. Furthermore, these young people knew exactly what they wanted and why they wanted it. Previous to

last September the entire product of the West Side Schools went to Grant Vocational High School, largely it seemed because of its accessibility. But only three boys out of the twenty-nine members of last year's class at Van Buren entered Grant Vocational School, and knew very definitely the reasons for their choice, while the twenty-six who went to Washington High School were fully as certain for their choices.

We appeared at Van Buren School entirely unannounced on the day following a holiday, yet we found the work moving along in an even tenor according to the plan above outlined. Discipline seemed no problem in this school and the general order was splendid. With her Junior High School interests in the hands of the present alert and efficient corps of principals and teachers, Cedar Rapids need have no misgivings concerning this part of her school program.

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### YOUR FINAL WORD.

When this reaches you sit down and think: "What are some of the good school plans used in our local junior high schools?"

Write out your reply and send it to us at once.

What is your most important problem and what are you doing to meet it?

Bulletin VIII will be the last of the series.

Your contributed paragraphs will be more greatly appreciated than any complimentary or critical note concerning the series of bulletins. We have always appreciated both kinds of judgments, but the only kind of improvement we now can make is by turning all you best contributions into our last issue.

S. O. ROREM, Manager.